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Application Number 10/726,204

Filing Date Dec. 2, 2003

First Named Inventor Yamada, et al.

Art Unit 2833

Examiner Name Truc T. Nguyen

Attorney Docket Number 277723 2456

070793.0156

ENCLOSURES (Check all that apply)										
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	∐ F	ee Attached		Licensing-related			s			Appeal Communication to Board of Appeals and Interferences
	Amendment/Reply After Final Affidavits/declaration(s) Extension of Time Request Express Abandonment Request		Petition Petition to Convert to a Provisional Application Power of Attorney, Revocation Change of Correspondence Address Terminal Disclaimer Request for Refund				Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)' Proprietary Information Status Letter Other Enclosure(s) (please Identify below):			
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Applicant claims small entity status. See 37 CFR 1.27

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Filing Date	Dec. 2, 2003
First Named Inventor	Yamada, et al.
Examiner Name	Truc T. Nguyen
Art Unit	2833
Attorney Docket No.	070793 0156

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(Complete (if applicable)) SUBMITTED BY Registration No. Name (Print/Type) Telephone Paul A. Ragusa 38,587 212-408-2671 07/18/2006 Date Signature

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

On Appeal to the Board of Appeals and Interferences

Appellant(s)	•
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Akio Yamada et al.

Examiner

Truc T. Nguyen

Serial No.

10/726,204

Group Art Unit:

2833

Filed

December 2, 2003

Title

CONNECTOR

REPLY BRIEF

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July 18, 2006

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Paul Ragusa

38,587

Attorney Name

Registration No.

Signature

July 18, 2006

Date of Signature



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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

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CONNECTOR

REPLY BRIEF

Commissioner for Patents U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

On February 9, 2006, Appellants submitted, pursuant to 37 C.F.R. § 41.37, an Appeal Brief in support of the appeal of the rejections of pending claims 1-11 and 15. The examiner mailed an Answer on May 19, 2006. Appellants hereby submit, pursuant to 37 C.F.R. § 41.41, a Reply Brief further in support of the appeal of the rejections of pending claims 1-11 and 15.

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I. <u>STATUS OF CLAIMS</u>

Claims 1-11 and 15 stand finally rejected and are the subject of this appeal.

Claims 12 and 16 stand objected to, the examiner indicating that these claims would be allowable if rewritten in independent form including the limitation of the claims from which they depend.

Claims 13-14 stand canceled.

II. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection for review are:

- (1) the rejection of claims 1-5 and 15 under 35 U.S.C. § 103(a) as allegedly obvious over U.S. Pat. No. 5,350,310 to Roberts ("Roberts")¹ in view of U.S. Pat. No. 5,928,029 to Lam ("Lam"); and
- (2) the rejection of claims 6-11 under § 103(a) as allegedly obvious over Roberts in view of Lam and further in view of U.S. Pat. No. 5,163,847 to Regnier ("Regnier").

¹ Appellants noted in footnote 1 on page 8 of the Appeal Brief that the Examiner had, in the April 7, 2005 and October 6, 2004 Office Actions and the July 13, 2005 Advisory Action, cited to a "Roberto" reference that did not correspond to any of the patents that the Examiner had cited as prior art. Appellants assumed that the examiner intended to cite to "Roberts" (US Pat. No. 5,350,319) based on the prior art patent numbers cited by the examiner. Although the examiner has cited to "Roberts" (US Pat. No. 5,350,319) in sections (8) - (10) of the Examiner's Answer mailed on May 19, 2006, the examiner has, in section (9), again cited to "Roberto," a reference not listed in section (8) Evidence Relied Upon. Applicants have assumed, once again, that when the examiner cited to "Roberto" in the Examiner's Answer that the intent was to cite instead to "Roberts" (US Pat. No. 5,350,319).

III. ARGUMENT

A. Introduction

In addition to the arguments presented in Appellants' Appeal Brief, Appellants present two arguments below in further support of the patentability of claims 1-11 and 15. For at least these additional reasons, the examiner's rejections of claims 1-11 and 15 are incorrect and should be reversed.

B. Rejections of claims 1-5 and 15 under 35 U.S.C. § 103 based upon combined teachings of Roberts and Lam

i. Argument for Independent Claim 2

The examiner alleges that "Roberto substantially disclosed the claimed invention except the pushing member being a U-shaped member formed of a unitary part. Lam teach a U-shaped unitary member (12). It would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the pushing member of Roberto by a U-shaped unitary pushing member, as taught by Lam for reducing assembling time." May 19, 2006, Examiner's Answer at page 4. However, this combination of Roberts and Lam is improper.

Lam is directed to an electrical connector comprised of a pin portion and two contact arms in a U-shaped configuration that is "designed to permit repetitive interconnection between a flat cable" and the electrical connector. *See* Lam, Col. 3, Il. 49-64. Indeed, Lam does not disclose or suggest inserting more than one flat cable into the electrical connector.

Furthermore, the connector in Lam is designed specifically to accommodate only one flat cable. In particular, after inserting the single flat cable into the connector, a "slide member 13 is

then inserted between the flat flexible cable 26 and the lower row of contact arms." *See* Lam, Col. 5, Il. 42-44. As a result, the flat cable is then maintained "against the upper row of contact arms of the terminals" and is solely in electrical contact with the upper row of contact arms. *See* Lam, Col. 5, Il. 31-54; *see also* Lam, Col. 4, Il. 3-7. While the "slider urges the exposed conductive portions of the flat cable into electrical engagement" with the upper row of contact arms, the lower row of contact arms "maintains elastic urging of the slider and thereby the flat cable into engagement with the [upper row of contact arms]." *See* Lam, Col. 4, Il. 3-7. Thus, the flat cable is electrically engaged with merely the upper row of contact arms and not the lower row of contact arms.

Because the flat cable disclosed in Lam has "exposed conductive portions along a *single* surface" (emphasis added) (*i.e.*, on the single surface facing the upper row of contact arms), *see* Lam, Col. 3, Il. 64-66, if an additional flat cable were to be inserted into the connector, the flat cable sandwiched between the other flat cable and the slide member would not be electrically engaged with the upper row of contact arms. Thus, this arrangement of having a flat cable with conductive portions along a single surface that is electrically engaged with only one row of contact arms renders it impossible to insert any additional flat cables into the connector such that they electrically engage with the contact arms without having to modify the connector or the flat cables.

Consequently, because the connector in Lam is designed to only allow *one* flat cable to be inserted into it, one of ordinary skill in the art would not attempt to use Lam's U-shaped pusher member with Roberts, which requires that *two* flexible circuits (12) be inserted into the aperture (18) according to the examiner. *See* May 19, 2006, Examiner's Answer at page 6.

Consequently, the combination of Lam and Roberts is improper. For at least this reason, along with the arguments presented in Appellants' Appeal Brief, the examiner should withdraw the rejection under § 103(a).

ii. Argument for Independent Claim 1

As stated in Appellants' Appeal Brief, claim 1 recites all of the limitations of claim 2 except that claim 1 requires "at least three flexible printed circuit boards" be inserted into a "fitting aperture" whereas claim 2 requires insertion of only "two flexible printed circuit boards." Thus, Appellants reassert the patentability argument presented above, as well as those presented in Appellants' Appeal Brief, in connection with claim 2 and submit that claim 1 is patentable for the same reasons as claim 2. Accordingly, claim 1 cannot be rendered obvious by recourse to the examiner's argument that "mere duplication of the essential working parts of a device involves only routine skill in the art." May 19, 2006, Examiner's Answer at page 4.

iii. Argument for Dependent Claims 3-5 and 15

Appellants submit that, because claims 4 and 15 depend, either directly or indirectly, from independent claim 2, and thereby contain all of its limitations, claims 4 and 15 cannot be rendered obvious by the combination of Roberts and Lam. Appellants further respectfully submit that, because claim 1 is not rendered obvious by Roberts and Lam, claim 3, which contains all of the limitations of claim 1, cannot be rendered obvious by reliance on these references. Finally, Appellants submit that, because claim 5 multiply depends from either claim

3 or 4, which depend from claims 1 and 2, respectively, and so contain all of their limitations, claim 5 cannot be rendered obvious by the Roberts and Lam combination.²

C. Rejections of claims 6-11 under 35 U.S.C. § 103 based upon combined teachings of Roberts, Lam, and Regnier

i. Argument for Dependent Claims 6-11

Claims 6-11 depend directly from claim 5 and thereby contain all of its limitations. As set forth above, claim 5 is not rendered obvious by Roberts and Lam. Furthermore, Regnier has been cited only for disclosing "a circuit (10) having slit (16)," May 19, 2006, Examiner's Answer at page 4, and has not been cited against claim 5 for the limitations not taught by Roberts and Lam. Therefore, Appellants respectfully submit that claims 6-11 that depend from claim 5 cannot be rendered obvious by the examiner's reliance on Regnier's disclosure for "a circuit (1) having a slit (16)."

Even assuming, *arguendo*, that claim 5, the claim from which claims 6-11 depend, is not patentable over the prior art, neither Roberts, Lam, nor Regnier discloses or suggests that there be "slits between adjacent contact portions" as required by claim 6. Because claims 7-11 recite limitations similar to this limitation of claim 6 (claim 7: "slits between the contact portions"; claim 8: "slits between each pair of two adjacent contact portions"; claim 9: "slits between pairs of each two adjacent contact portions"; and claims 10 and 11: "slits between the adjacent contact portions arbitrarily selected to provide a compliance to said adjacent contact portions"), the discussion below should be applied to those claims as well.

² It should be noted that the examiner only rejected those parts of multiply dependent claim 5 that depend from claim 3, April 7, 2005, Office Action at page 3, and did not reject those parts of multiply dependent claim 5 that depend from claim 4.

The examiner has failed to establish under § 103(a) a *prima facie* case of obviousness for claim 6.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). 'All words in a claim must be considered in judging the patentability of that claim against the prior art.' *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

Manual of Patent Examining Procedure, § 2143.03. Regnier has been cited only for disclosing "a circuit (10) having slit (16)," May 19, 2006, Examiner's Answer at page 4. In addition, neither Roberts nor Lam has been cited as even disclosing a "slit." Because the examiner has failed to cite any references that disclose or suggest that there be "slits between adjacent contact portions" as required by claim 6, each and every element of claim 6 has not been "taught or suggested by the prior art." Thus, the rejection of claim 6, and similarly the rejections of claims 7-11, under § 103(a) are improper.

Further, even if the examiner's citation to Regnier ("a circuit (10) having slit (16)") can somehow be construed as disclosing or suggesting the element "slits between adjacent contact portions" as required by claim 6, which on its face it does not, Regnier does not disclose or suggest the aforementioned limitation. First of all, only a single notch (16) is shown in Fig. 1 (the only figure showing the notch (16)), resulting in there being many adjacent conductive pads (22a) lacking a slit between them. *See* Regnier, Fig. 1. Further, the invention is directed to "a card edge connector assembly . . . with a locating notch 16. . . ." Regnier, Col. 3, ll. 33-38. Thus, Regnier does not disclose or suggest having more than one notch nor does it disclose or suggest having those notches located "between adjacent contact portions" as required by claim 6.

Thus, the rejection of claim 6, and similarly the rejections of claims 7-11, under § 103(a) are improper.

Accordingly, the obviousness rejection of claims 6-11 should be reversed.

For the foregoing reasons, the examiner' rejection of claims 1-11 and 15 should be reversed.

Respectfully submitted,

Dated: July 18, 2006

Paul Ragusa

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